

BASF Canada Inc.

Rexdale, Ontario

"This project was most useful in helping us to understand how and where we use energy and resources and it identified a number of energy-saving projects with good paybacks."

Steve Belej
Manufacturing Sites Manager
BASF Canada Inc.

THE COMPANY

BASF Canada Inc. is the Canadian affiliate of an international chemicals manufacturer. The company manufactures paints, fibres and other chemicals at six plants in Ontario.

The Rexdale facility employs 265 people and is the main warehouse and distribution centre for BASF in Canada. The Rexdale plant also makes various coatings and specialty chemicals and houses research and development facilities and quality control laboratories.

THE CHALLENGE

The Rexdale site is primarily a warehouse and distribution centre. Energy costs are a significant operating expense. The company also manufactures small batches of specialty chemicals, such as specially formulated polyurethane resins, at the plant. These small batch manufacturing operations produce irregular volumes of liquid wastes, which are shipped by truck for treatment at a company plant in Cornwall, Ontario.

In 1995, the Ministry of Environment and Energy and BASF retained the services of Stone & Webster Canada Ltd. to conduct a resource and environmental conservation analysis of the Rexdale facility.

OPPORTUNITIES

The most obvious opportunity to conserve energy at BASF Rexdale was in the large warehouse. Some opportunity also existed to reduce the volume of liquid waste that is produced by the manufacturing operations.



The Etobicoke facility is the main distribution and warehousing centre for BASF in Canada.

RECOMMENDATIONS

The final report of the green analysis of BASF Rexdale included 12 recommendations. The five most important recommendations were to:

- * improve boiler instrumentation and controls;
- * replace one boiler with a smaller, more efficient model;
- * improve lighting efficiency;
- * repair and monitor the steam trap;
- * use flocculants to concentrate liquid waste.

The consultant also recommended completing a materials balance for plant operations and a program to reduce off-specification material.

POTENTIAL SAVINGS

The green analysis of BASF Rexdale identified the following potential savings from the recommended improvements:

	<i>Potential annual reduction</i>	<i>Potential reductions as a percentage of total plant use or production</i>
Electrical energy	194 MWh	9%
Electrical demand	117 kW	19
Natural gas	208,000 m ³	32
Liquid waste	7.2 m ³	15

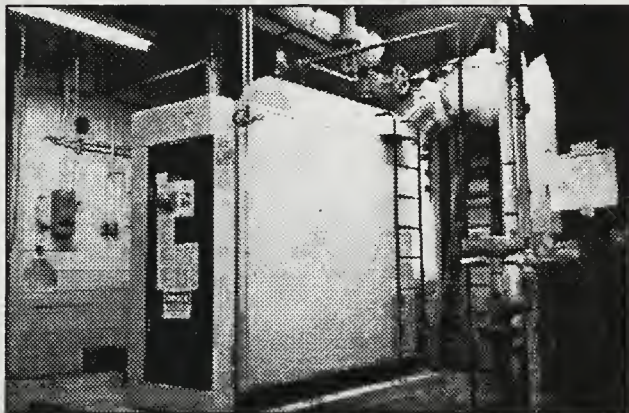
These improvements would require capital spending of about \$194,000.

PARTNERSHIP IN POLLUTION PREVENTION AND RESOURCE CONSERVATION

Industrial companies doing business in Ontario may seek ministry/industry services that will help them to:

- * use energy and water more efficiently;
- * reduce, reuse and recycle solid waste
- * reduce or eliminate liquid effluents and gaseous emissions.

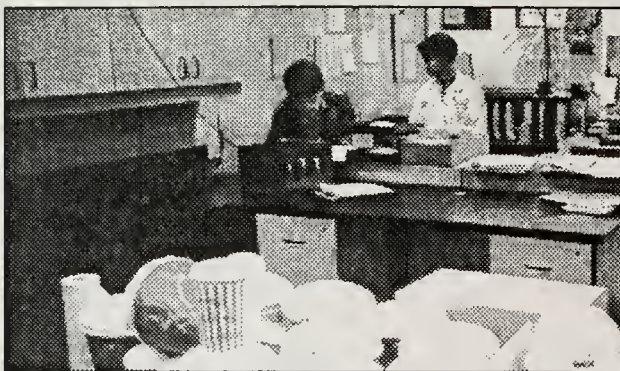
Equipment and services supply companies can benefit from the information provided on technologies identified for business development.



BASF has already implemented a key recommendation. This modern, efficient steam boiler has replaced an old, inefficient and larger one.



A small batch blending operation.



The facility includes a laboratory for research and development, and quality control.

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MINISTRY OF ENVIRONMENT AND ENERGY SERVICES

For information on Ministry of Environment and Energy assistance to industry, please contact the Industry Conservation Branch at (416) 327-1492, Fax (416) 327-1261.

This project profile was prepared and published as a public service by the Ontario Ministry of Environment and Energy. Its purpose is to transfer information to Ontario companies about findings and recommendations of a resource conservation and environmental analysis conducted by a consulting engineering firm at an industrial plant in Ontario.

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